Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended). A method of analyzing a digital image channel comprising the steps of:

extracting a signal from the digital image channel; and

using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel, wherein said interpolated digital image channel is derived from and has a higher sampling rate than a source digital image channel.

2 (currently amended). The method as claimed in claim 1 wherein said using further includes determining an estimated factor of interpolation from said signal, when said digital image channel is an interpolated digital image.

3 (previously submitted). A method of analyzing a digital image channel comprising the steps of:

a) providing a digital image channel;

b) extracting a signal from the digital image channel; and

c) using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel;

wherein the step b) of extracting a signal comprises extracting a signal related to differences between the values of neighboring pixels of the digital image channel.

4 (previously submitted). A method of analyzing a digital image channel comprising the steps of:

a) providing a digital image channel;

b) extracting a signal from the digital image channel; and

c) using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel;

wherein the step c) of using the extracted signal comprises determining the periodicity of the extracted signal by computing a Fourier Transform signal of the extracted signal and looking for peaks in the Fourier Transform signal.

5 (currently amended). The method as claimed in claim 1 wherein said using further includes, when said digital image channel is an interpolated digital image, determining from said signal the method of interpolation that was used to form the interpolated digital image channel.

6 (currently amended). An image processing system for determining the interpolation attributes of a digital image channel, said system comprising:

means for extracting a signal from the digital image channel; and

means for using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel, wherein said interpolated digital image channel is derived from and has a higher sampling rate than a source digital image channel.

7 (currently amended). The image processing system as claimed in claim 6 wherein said means for using the extracted signal further determines an estimated factor of interpolation from said signal, when said digital image channel is an interpolated digital image channel.

8 (previously submitted). An image processing system for determining the interpolation attributes of a digital image channel, said system comprising:

means for extracting a signal from the digital image channel; and

means for using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel;

wherein said means for extracting a signal comprises means for extracting a signal related to differences between the values of neighboring pixels of the digital image channel.

9 (previously submitted). An image processing system for determining the interpolation attributes of a digital image channel, said system comprising:

means for extracting a signal from the digital image channel; and

means for using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel;

wherein said means for using the extracted signal comprises means for determining the periodicity of the extracted signal by computing a Fourier Transform signal of the extracted signal and looking for peaks in the Fourier Transform signal.

10 (currently amended). The image processing system as claimed in claim 6 wherein said means for using the extracted signal further includes, when said digital image channel is an interpolated digital image channel, determining from said signal ~~determines~~ the method of interpolation that was used to form the interpolated digital image channel.

11 (original). The image processing system as claimed in claim 6 further including means for sending a message to a user based on determining whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel.

12 (previously submitted). The image processing system as claimed in claim 6 further including means for determining a subsequent image processing path based on whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel.

13 (currently amended). ~~The method as claimed in claim 1~~ A method of analyzing a digital image channel comprising the steps of:

extracting a signal from the digital image channel; and

using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel;

wherein said extracting a signal comprises extracting a signal related to differences between the values of neighboring pixels of the digital image channel.

14 (currently amended). ~~The method as claimed in claim 1~~ A method of analyzing a digital image channel comprising the steps of:

extracting a signal from the digital image channel; and

using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel;

wherein said using the extracted signal comprises determining the periodicity of the extracted signal by computing a Fourier Transform signal of the extracted signal and looking for peaks in the Fourier Transform signal.

15 (cancelled).

16 (currently amended). A digital image analysis method comprising the steps of:

extracting a signal from ~~a channel of a~~ the digital image; and

using the extracted signal to determine whether the ~~channel is~~ digital image has been interpolated to a higher sampling rate or is non-interpolated.

17 (previously submitted). The method as claimed in claim 16 wherein said using further includes determining an estimated factor of interpolation.

18 (currently amended). The method as claimed in claim 16 wherein said digital image ~~has~~ is one of three channels of a color image.

19 (currently amended). The method as claimed in claim 18 wherein said ~~digital image has~~ three channels are red, green, and blue ~~channels~~.

20 (currently amended). The method as claimed in claim 16 wherein said using further comprises determining whether said ~~channel~~ image contains a periodicity corresponding to an interpolation factor.

21 (new). A method of analyzing a digital image channel comprising the steps of:

extracting a signal from the digital image channel; and

using the extracted signal to determine whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel, wherein said interpolated digital image channel has an integer factor of interpolation.